

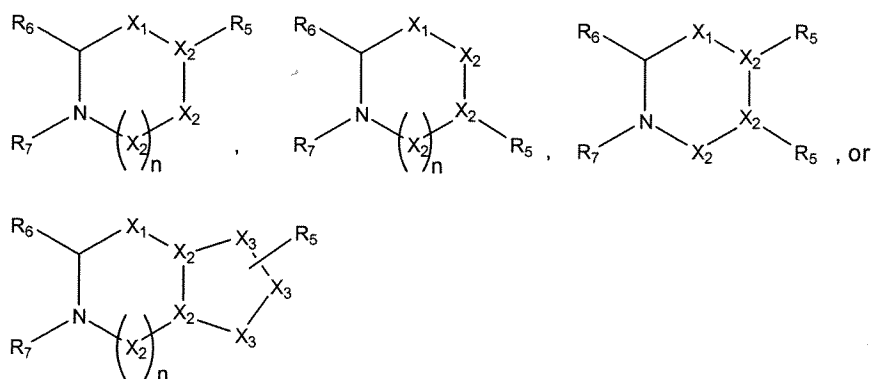
**Amendments to the Claims:**

The listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

Claims 1-72 (canceled)

Claim 73 (new): A peptidomimetic comprising the formula:



wherein

X<sub>1</sub> is (CH<sub>2</sub>)<sub>m</sub> or X<sub>3</sub>;

X<sub>2</sub> is independently CH<sub>2</sub>, CH, NH or N;

X<sub>3</sub> is independently (CH<sub>2</sub>)<sub>n</sub>, CH, NH, N, O, C=O, C=S, S, S=O, or SO<sub>2</sub>;

R<sub>5</sub> is any moiety other than H;

R<sub>6</sub> is an amino acid side chain moiety or derivative thereof;

R<sub>7</sub> is one or more amino acid residues or derivatives thereof and optionally a terminal group moiety, or is an amino acid side chain moiety or derivative thereof;

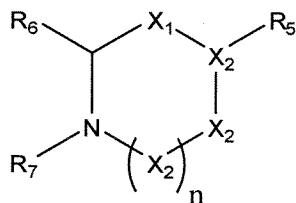
R<sub>7</sub> and at least one of R<sub>6</sub> or R<sub>5</sub> each constitute an element occupying a similar descriptor space as corresponding elements of the biologically active metallopeptide;

n is 0, 1, 2 or 3; and

m is 0 or 1;

provided that any two adjacent CH groups, adjacent NH and CH groups or adjacent NH groups may optionally form a double bond.

Claim 74 (new): A peptidomimetic of claim 73 having the formula:



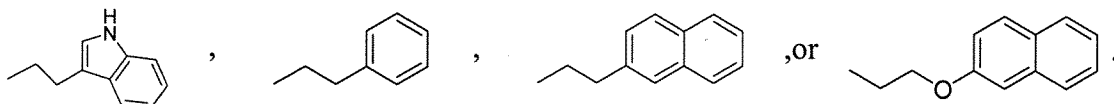
wherein

$X_1$  is  $(CH_2)_m$  or  $X_3$ ;

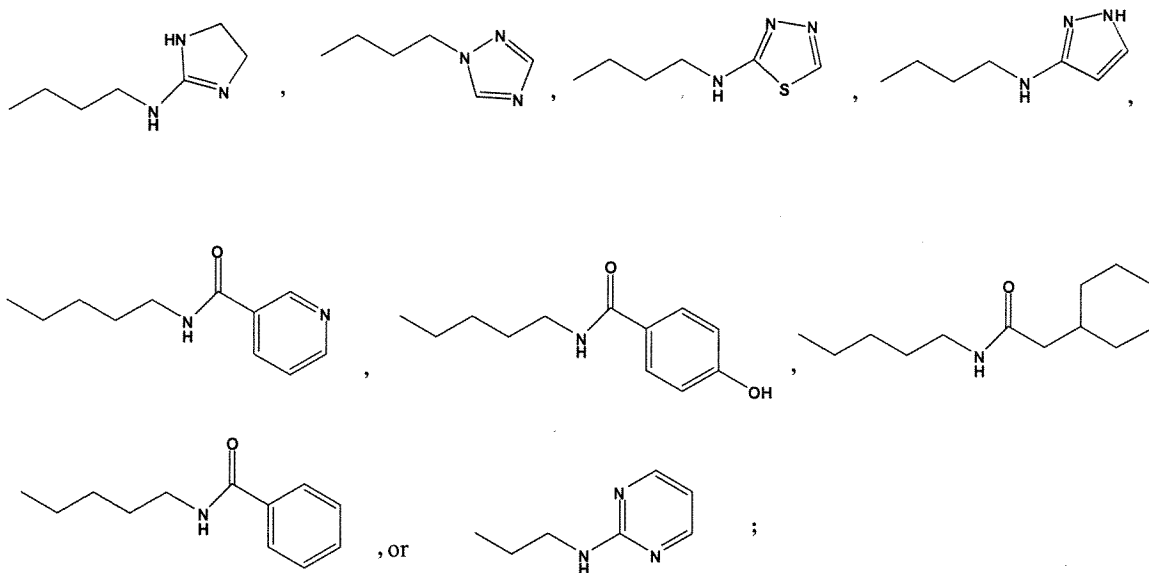
$X_2$  is independently  $CH_2$  or  $N$ ;

$X_3$  is  $C=O$ ;

$R_5$  is



$R_6$  is  $-(CH_2)_4NH_2$ ,  $-(CH_2)_3NHC(NH_2)=NH$ ,  $-(CH_2)_3NHCOCH_3$ ,  $-(CH_2)_3NHCOOCH_3$ ,  
 $-(CH_2)_2NHC(NH_2)=NH$ ,  $-(CH_2)_2NHCONH_2$ ,  $-(CH_2)_4NHCOH$ ,  $-(CH_2)_4NHCOCH_3$ ,  
 $-(CH_2)_3NHCONHCH_3$ ,  $-(CH_2)_3NHSO_2NH_2$ ,  $-(CH_2)_3NHSO_2CH_3$ ,  $-(CH_2)_3NH_2$ ,  
 $-(CH_2)_2CONH_2$ ,  $-(CH_2)_3NH(C=NH)NHMe$ ,  $-(CH_2)_3NH(C=NH)NHET$ ,  
 $-(CH_2)_3NH(C=NH)NHPr$ ,  $-(CH_2)_3NH(C=NH)NHPr-i$ ,  $-(CH_2)_3NH(C=NH)NH_2$ ,  
 $-(CH_2)_4NHCONH_2$ ,  $-(CH_2)_4NH(C=NH)NH_2$ ,



R<sub>7</sub> is R<sub>9</sub>-R<sub>8</sub>-, where

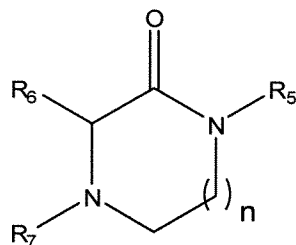
R<sub>8</sub> is an L- or D-configuration of Phe, Phe(2-Cl), Phe(4-Cl), Phe(2,4-diCl), Phe(3,4-diCl), Phe(4-NO<sub>2</sub>), Phe(4-Me), Phe(4-Phenyl), HPhe, Pgl, Trp, Nal 1, Nal 2, Bip, Dip, Bpa, Ser(Bzl), Lys(Z), Lys(Z-2'Br), Lys(Bz), Thr(Bzl), Cys(Bzl), Tyr(BzlCl<sub>2</sub>), pF-Phe, Phe(4-Br), Phe(4-CF<sub>3</sub>), Phe(3,4-diF), Phe(4-I) or Phe(3,4-di-OMe); and

R<sub>9</sub> is optionally not present or is an L- or D-configuration of His, Ser(Bzl), Tic, heptanoyl-Ser(Bzl), hexanoyl-Ser(Bzl), Hyp(Bzl), 4-phenylPro, 5-phenylPro, Tiq, Atc, Igl, Hyp(O-2-Naphthyl), Hyp(O-Phenyl), 2-Aic, Idc, 1-Aic, NH<sub>2</sub>(CH<sub>2</sub>)<sub>6</sub>CO-, Benzyl, Beta-homoSer(Bzl), Ser(O-2-Naphthyl), Ser(O-Phenyl), Ser(O-4-Cl-Phenyl), Ser(O-2-Cl-Phenyl), Thr(Bzl), Tic, heptanoyl-Thr(Bzl), hexanoyl-Thr(Bzl), Beta-homoThr(Bzl), Thr(O-2-Naphthyl), Thr(O-Phenyl), Thr(O-4-Cl-Phenyl) or Thr(O-2-Cl-Phenyl); and

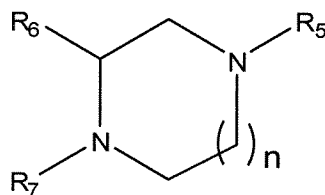
n is 1; and

m is 1.

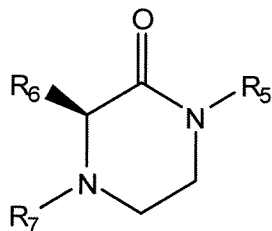
Claim 75 (new): A peptidomimetic of claim 74 having the formula:



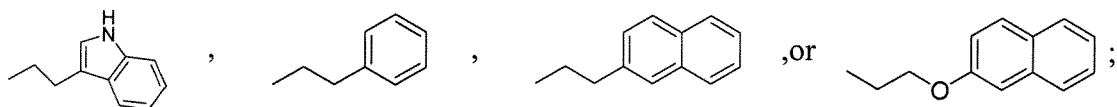
Claim 76 (new): The peptidomimetic of claim 74 having the formula:



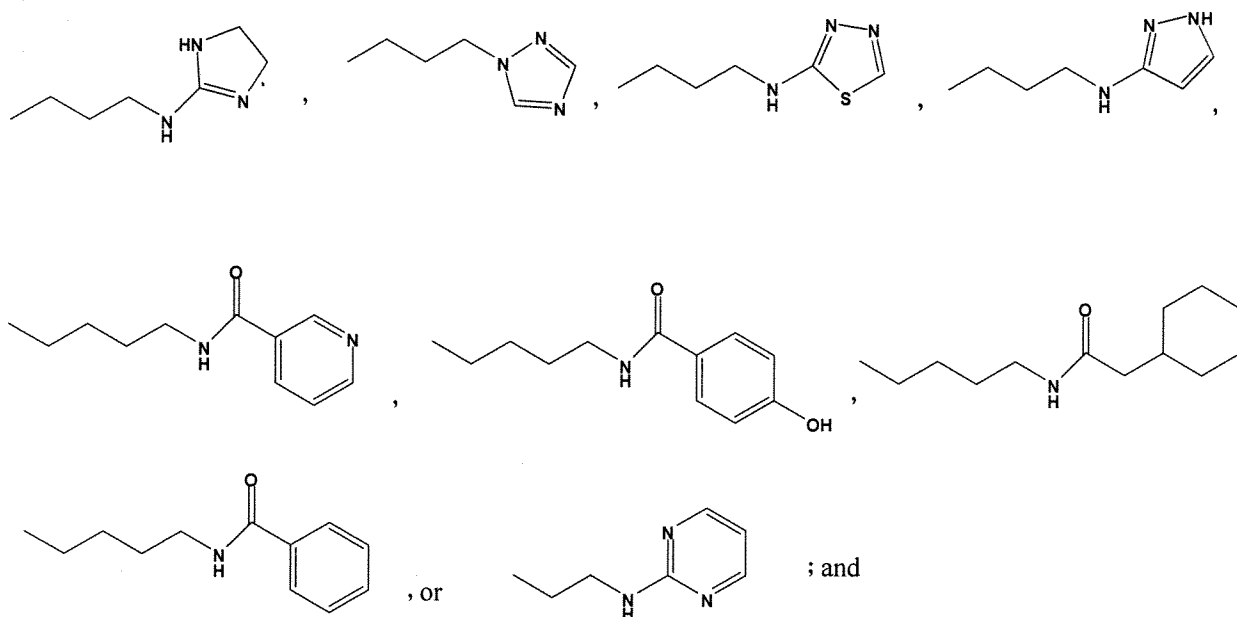
Claim 77 (new): The peptidomimetic of claim 74 having the formula:



Wherein R<sub>5</sub> is



R<sub>6</sub> is  $-(\text{CH}_2)_4\text{NH}_2$ ,  $-(\text{CH}_2)_3\text{NHC}(\text{NH}_2)=\text{NH}$ ,  $-(\text{CH}_2)_3\text{NHCOCH}_3$ ,  $-(\text{CH}_2)_3\text{NHCOOCH}_3$ ,  
 $-(\text{CH}_2)_2\text{NHC}(\text{NH}_2)=\text{NH}$ ,  $-(\text{CH}_2)_2\text{NHCONH}_2$ ,  $-(\text{CH}_2)_4\text{NHCOH}$ ,  $-(\text{CH}_2)_4\text{NHCOCH}_3$ ,  
 $-(\text{CH}_2)_3\text{NHCONHCH}_3$ ,  $-(\text{CH}_2)_3\text{NHSO}_2\text{NH}_2$ ,  $-(\text{CH}_2)_3\text{NHSO}_2\text{CH}_3$ ,  $-(\text{CH}_2)_3\text{NH}_2$ ,  
 $-(\text{CH}_2)_2\text{CONH}_2$ ,  $-(\text{CH}_2)_3\text{NH}(\text{C}=\text{NH})\text{NHMe}$ ,  $-(\text{CH}_2)_3\text{NH}(\text{C}=\text{NH})\text{NHEt}$ ,  
 $-(\text{CH}_2)_3\text{NH}(\text{C}=\text{NH})\text{NHPr}$ ,  $-(\text{CH}_2)_3\text{NH}(\text{C}=\text{NH})\text{NHPr-i}$ ,  $-(\text{CH}_2)_3\text{NH}(\text{C}=\text{NH})\text{NH}_2$ ,  
 $-(\text{CH}_2)_4\text{NHCONH}_2$ ,  $-(\text{CH}_2)_4\text{NH}(\text{C}=\text{NH})\text{NH}_2$ ,



R<sub>7</sub> is R<sub>9</sub>-R<sub>8</sub>-, where

R<sub>8</sub> is L- or D-Phe, pF-Phe, Phe(4-Br), Phe(4-CF<sub>3</sub>), Phe(4-Cl), Phe(2-Cl), Phe(2,4-diCl),  
Phe(3,4-diCl), Phe(3,4-diF), Phe(4-I), Phe(3,4-di-OMe), Phe(4-Me) or Phe(4-NO<sub>2</sub>);  
and

R<sub>9</sub> is optionally not present or is an L- or D-His, Ser(Bzl), Tic, heptanoyl-Ser(Bzl),  
Hyp(Bzl), 4-phenylPro, 5-phenylPro, Tiq, Atc, Igl, Hyp(O-2-Naphthyl),  
Hyp(O-Phenyl), 2-Aic, Idc, 1-Aic, NH<sub>2</sub>(CH<sub>2</sub>)<sub>6</sub>CO-, Benzyl, Beta-homoSer(Bzl),  
Ser(O-2-Naphthyl), Ser(O-Phenyl), Ser(O-4-Cl-Phenyl) or Ser(O-2-Cl-Phenyl).

Claim 78 (new): A pharmaceutical composition comprising a peptidomimetic of any one  
of claims 73-77 and a pharmaceutically acceptable carrier.

Claim 79 (new): A method of treating a disease or condition comprising administering a peptidomimetic of any one of claims 73-77, wherein the disease or condition is an eating disorder, pathologic obesity, or sexual dysfunction.

Claim 80 (new): The method of claim 79, wherein the sexual dysfunction is male erectile dysfunction or female sexual dysfunction.

Claim 81 (new): The method of claim 79, wherein the peptidomimetic is administered as a pharmaceutical composition together with a pharmaceutically acceptable carrier.